

Syllabus.

MATH-121-0498: Plane Trigonometry Fall 2021.

Instructor Information Including Contact Information.

Instructor Name: Kit Newton.

Email: knewton@dvc.edu

Office: MA-128

Phone: 925-969-2674

Office Hours and Location:

Monday 2:30 PM – 4:00 PM (Zoom)

Tuesday 11:15 AM – 12:30 PM (in person)

Wednesday 12:35 PM – 1:35 PM (in person)

Thursday 11:15 AM – 12:30 PM (in person)

In person office hours will be held in my office on Diablo Valley College's Pleasant Hill Campus, room MA-128. Zoom office hours will be held in my personal Zoom room, the meeting number is 697 290 8082 with the passcode "officehour", or you can use the [link here](#).

General Course Information.

Course #: 121

Section: 0498

Days/Times: Monday, 11:10AM – 12:35 PM

Wednesday, 11:10AM – 12:35 PM

Location/Instruction Mode: Diablo Valley College, Pleasant Hill Campus, Math Building Room 109/In Person

Units: 3

Semester: Fall

Year: 2021

Textbook/Materials/Supplies Required.

Our recommended book is "Trigonometry" by McKeague and Turner, 8th edition, 2017. You do not necessarily have to purchase the book to participate in the class, it is available through the library. Reading will be recommended from the book. Please note that we are not using WebAssign. Homework assignments will be distributed through Canvas, no WebAssign or WebWork is required. Calculators are not required, we will use the CAS "[SageMath](#)" available free, as needed. You must wear a face mask to come to campus and attend class. Face masks must cover the nose and mouth and fit snugly to the sides of the face, under the chin, and nose. Single layer scarfs or gaiters, masks with valves, or masks made out of mesh are not acceptable. Please see the [CDC guidelines for masks](#) if you have questions. If you do not have a mask, disposable masks will be provided. If you refuse to wear a mask or comply with the mask

guidelines, you will be required to leave campus, I will record your name and student ID number, and you will be subject to the Student Code of Conduct sanctions.

No technology is required to participate in this class, unless it becomes necessary for us to move the class online due to COVID. If we move online, we will have synchronous Zoom meetings, and your computer will need to support synchronously joining our class over Zoom, with a webcam, microphone, and internet connection.

Vaccinations.

Please get vaccinated to protect yourself, your fellow students, and your friends and family. If you have questions about vaccination, I am happy to help you answer them. You can also read about vaccination here: <https://www.coronavirus.cchealth.org/get-vaccinated>.

Course Description.

This course focuses on the theory and applications of trigonometry, including right triangle trigonometry, general angle trigonometry, and trigonometry on the unit circle, as well as trigonometric functions of real numbers. Applications include solutions of right and oblique triangles in problems in surveying, physics, engineering and navigation.

Course Outline.

- A. Angles - degree and radian measure
- B. Right triangle trigonometry
- C. Trigonometric functions of angles
- D. Trigonometry on the unit circle
- E. Use of hand calculators
- F. Triangles and applications
- G. Vectors and circular motion
- H. Graphs of trigonometric functions
- I. Trigonometric identities
- J. Conditional trigonometric equations
- K. Inverse trigonometric functions
- L. Complex numbers and polar coordinates

Prerequisites.

Placement through the assessment process or MATH-120, or equivalent.

Attendance Policy.

We have in-person class meetings at the scheduled meeting time. Attending class is important for learning the material and succeeding in the class. If you are sick, you are not allowed to come to class. (This includes any symptoms of COVID-19 such as fever, chills, cough, new loss of taste or smell, fatigue, muscle or body aches, headache, sore throat, congestion or runny nose, nausea or vomiting, diarrhea, or shortness of breath or difficulty breathing, or any other symptoms of illness). We will have a quiz every class that will serve as attendance. Because of the uncertainty surrounding COVID-19, the lowest four quizzes will be dropped (in other words, you can miss two weeks of class to quarantine without explanation or penalty). If you must miss more class than that, I can grant extra drops, but you must provide some evidence for why you must miss class, such as a doctor's note.

Communication Plan for Faculty and Students.

I aim to respond to email within 24 hours during the week (not including evenings and weekends). Course related announcements will be sent to the class through Canvas Inbox. Although I will try to make the same announcements during our class time, it will still be important for you to check your student email account and Canvas regularly to make sure you're not missing anything.

Homework and Late Submission Policies

We will have three midterm exams, twice weekly homework, twice weekly quizzes, and a final exam. That means we will have homework due every class period, and a quiz every class period. If you have school or career obligations that conflict with tests, email me at least a week ahead of time for possible accommodations.

In case of emergency, extensions on assignments may be possible. Please contact me about an extension **before** the due date/time. I will let you know if an extension has been granted and provide you with the updated due date/time. Assignments submitted after the due date/time without prior approval will receive zero credit.

Submission of Assignments

Assignments will be turned in during class, in person, on paper.

Student Learning Outcomes.

Students will be able to:

- A. Describe the principal concepts of trigonometry.
- B. Utilize the fundamental principles of trigonometry.
- C. Analyze and solve problems that have applications in mathematics, science and engineering.
- D. Develop skills in mathematical analysis.

E. Apply problem solving techniques and concepts applicable to the study of analytic geometry and calculus.

F. Demonstrate an awareness of the inter-relationship between algebra, geometry and trigonometry in the solution of mathematical problems.

Support and Resources.

- [MathLab](#) (available remotely, see [video](#) for instructions!)
- [Counseling](#) (available remotely)
- [Disability Support Services](#) (for students seeking accommodations)
- [Library](#)
- [Multicultural Center](#)
- [Financial Aid](#) (including COVID assistance)
- [Basic Needs](#) (food, shelter, health services)

Evaluation Criteria and Grading Standards.

Assignment	Percentage of Final Grade
Homework	15
Quizzes	20
Exam 1	15
Exam 2	15
Exam 3	15
Final Exam	20
Total	100

Grading Scale:

Grade	A	B	C	D
Score	90-100	80-89	60-79	50-59

Final grades are recorded as A=4.0, B=3.0, C=2.0, D=1.0, F=0. Grade totals will be rounded to the nearest whole number to determine the final letter grade assigned.

Syllabus Changes.

I may modify the syllabus or schedule with reasonable notice to you. Look for an Announcement in Canvas and an email.

ADA.

Diablo Valley College has Disability Support Services available. For information about accommodations for this and other courses, please visit the [DSS](#) page at the DVC website. If approved for accommodations, DSS will provide you with an accommodation plan. Please share your accommodation plan with me and discuss your approved accommodations as early in my

class as possible. If your accommodation needs are not being met, please inform me and Disability Support Services as soon as possible.

Equity and Inclusion.

This class aims to be a safe and affirming learning space for all students, regardless of age, race, ethnicity, citizen status, gender, sex, sexual orientation, parental status, religion, ability, or socioeconomic status. As an instructor, I pledge to respect all students based upon these factors, including the use of preferred names and pronouns, and I encourage open communication. Students are welcome and encouraged to share any/all viewpoints relevant to course material.

Academic Integrity.

Academic dishonesty, including cheating and plagiarism, is a violation of the DVC Student Code of Conduct and will not be tolerated. This includes giving or receiving assistance on any assignment, quiz, or exam unless specifically authorized by your instructor. These actions are grounds for academic consequences, such as receiving no credit for the assignment or a reduced grade in the class, and disciplinary consequences from the college. If you have any questions about academic dishonesty or plagiarism, please see the [DVC Academic Integrity Policy](#). Unless otherwise specified, your work in this class is individual work; helping or being helped on assessments is cheating; the penalty is up to a zero on the test for one offense, and an F in the class for a second offense.

Covid.

Please review the district COVID-19 Safety Guidelines before attending class.

<https://www.dvc.edu/about/safety/health-advisories/covid-19-safety-faq.html>

All students are required to wear a mask that covers both the nose and mouth while attending class. If a student forgets to bring or wear a mask, they will be able to get a standard surgical paper mask in labs, classrooms, division deans' offices and the Student Services Center. If a student refuses to comply with mask requirements, they will be required to immediately leave the class and may be subject to the college's code of conduct.

You are required to complete a self-assessment prior to coming to campus each day. Please review [the student self-assessment checklist](#).

You are not permitted to enter the campus if:

- you are experiencing any COVID-19 symptoms. You must leave the classroom if you develop symptoms while on campus or
- you have been in close contact with, or otherwise exposed to, a known or suspected case of COVID-19 and you should not come to campus until you have been cleared to do so by a medical professional (negative test result) following current guidance from the CDC.

You should contact me immediately if you need to miss class for an extended period of time due to COVID symptoms or exposure and online instructional materials will be made available thru Canvas. You will be able to complete course material online during your absence and will not be penalized for missing class.

Class meets weekly as scheduled. Based on changing COVID-19 guidelines, additional social distancing practices may be implemented, including possible conversion to partially or 100% online.

Tentative Schedule.

Generally, we will follow our book listed above.

Week:	Topic:	Reading:
8/23-8/27	Angles, trig functions, Pythagorean theorem	Chapter 1
8/30-9/3	Solving right triangles	2.1, 2.2, 2.3
9/6-9/10	Applications of Right Triangles, Labor Day	2.4, 2.5
9/13-9/17	Radians and Exam 1	3.1, 3.2, 3.3
9/20-9/24	Graphs of Trig Functions	4.1 – 4.4
9/27-10/1	Graphs of Trig Functions	4.4 – 4.6
10/4-10/8	Inverse Functions	4.7
10/11-10/15	Trig Identities and Exam 2	5.1-5.3
10/18-10/22	Trig Identities	5.4, 5.5
10/25-10/29	Solving Trig Equations	6.1, 6.2
11/1-11/5	Solving Trig Equations and Exam 3	6.3
11/8-11/12	Law of Sines and Cosines, Veterans Day	7.1, 7.2, 7.3
11/15-11/19	Vectors	7.4, 7.5
11/22-11/26	Complex Numbers (note Thanksgiving holiday)	8.1, 8.2, 8.3
11/29-12/3	Polar Coordinates	8.5, 8.6
12/6-12/10	Review and Final Exam (Wednesday, 12/8)	

Deadlines.

September 3rd: Last day to drop and be eligible for refund of fees.

September 6th: Last day to add, or drop without a “W”

September 23rd: Last day to request P/NP

November 12th: Last day to withdraw with a “W”